

REMARKS

Claims 1-16 and 18 are presented for consideration, with Claim 1 being independent.

Claim 1 has been amended to further distinguish Applicant's invention from the cited art. In addition, an editorial change has been made to Claim 18.

The amendments to the claims were not presented earlier as it was believed that the previously presented claims would be found allowable. This Amendment does not add any additional claims. Moreover, the Examiner's familiarity with the subject matter of the present application will allow an appreciation of the significance of the amendments herein without undue expenditure of time and effort. Finally, the Amendment does not raise new issues requiring a substantial amount of further consideration or search. Accordingly, it is submitted that entry of the Amendment is appropriate.

Applicant notes with appreciation that Claims 10, 11, 12, 13, 14 and 15 are indicated as containing patentable subject matter and will be allowed if placed in independent form. These claims remain in dependent form, however, as it is respectfully submitted that parent Claim 1 is patentable in its own right for the reasons discussed below.

The amendment to Claim 18 as shown above is submitted to overcome the informality identified in paragraph 1 of the Office Action.

Claims 1, 2, 9 and 16 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Applicant's admitted prior art Figure 8. In addition, Claims 3-8 and 18 are

rejected under 35 U.S.C. §103 as allegedly being obvious over prior art Figure 8 in view of Shiono '433. These rejections are respectfully traversed.

Claim 1 of Applicant's invention relates to a diffractive optical element comprised of a periodic first blazed type grating portion and a periodic second blazed type grating portion arranged on a light exit side of the first blazed type grating portion. The first blazed type grating portion and the second blazed type grating portion are each formed by a plurality of grating sections, and a pair of grating sections corresponding to each other in each periodic first and second blazed type grating portions has the same period  $P_t$ . Also, each of the grating sections forming at least one of the first blazed type grating portion and the second blazed type grating portion is formed by a sub-wavelength structured grating having a period  $p_l$  smaller than the period  $P_t$ , with the period  $p_l$  being smaller than a wavelength of a light beam used. As amended, Claim 1 recites that polarized light beams are diffracted by the first blazed type grating portion and the second blazed type grating portion at a specific diffraction order.

Support for the claim amendments to Claim 1 can be found, for example, on page 14, lines 2-11 of the specification. In accordance with Applicant's claimed invention, a high performance diffractive optical element can be provided.

Applicant's prior art Figure 8 shows a conventional diffractive optical element that includes an SWS (sub-wavelength structured) grating. As disclosed in the Related Background Art section of the specification, the grating 5 is constituted by a material " $n_1$ " and a material " $n_2$ ."

In contrast to Applicant's claimed invention, however, prior art Figure 8 does

not teach or suggest, among other features, first and second blazed type grating portions as set forth in Applicant's independent Claim 1. The diffraction element in Figure 8 is also not arranged to focus diffracted light beams at a specific diffraction order.

Applicant also wishes to thank the Examiner for the courtesy extended toward their representative during the telephone conversation on August 23, 2005. The conversation focused primarily on prior art Figure 8 and Applicant's Claim 1. Applicant's position that the diffractive optical element shown in prior art Figure 8 does not constitute a first and second blazed type grating portion was discussed.

Accordingly, reconsideration and withdrawal of the rejection of Claims 1, 2, 9 and 16 under 35 U.S.C. §102(b) is deemed to be in order and such action is respectfully requested.

The secondary citation to Shiono relates to a diffractive optical element and was cited for its step-shaped grating. Shiono fails, however, to compensate for the deficiencies in prior art Figure 8 as discussed above with respect to Claim 1. Therefore, the proposed combination of prior art Figure 8 and Shiono, even if proper, still fails to teach or suggest Applicant's claimed invention.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. §103 is also requested.

Therefore, it is submitted that Applicant's invention as set forth in independent Claim 1 is patentable over the cited art. In addition, dependent Claims 2-16 and 18 set forth

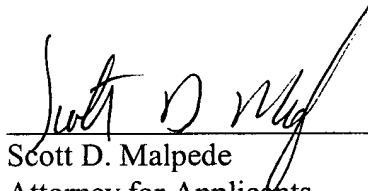
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additional features of Applicant's invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
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Scott D. Malpede  
Attorney for Applicants  
Registration No. 32,533

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

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